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AUTHOR Beehr, Terry A.; And Others
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ABSTRACT

Social support in the workplace may take many forms, and the form it takes may be related to the extent to which it buffers the relationship between occupational stressors and individual strains. A study was conducted to examine social support given to subordinates from their supervisors. Nurses (N=225) from seven hospitals completed measures of role stressors, job satisfaction and other outcomes, social supports, and contents of communications with supervisors. The results revealed that positive and negative work-related communications occurred between supervisors and subordinates, that supervisors and subordinates also talked about non-job related events, and that these three types of communications were often combined. Subordinates' perceptions of available support from their supervisors were primarily related to positive job-related or non-job-related communications and only slightly related to negative job-related communications. Traditional measures of perceived social support had main effects on employee strain; contents of communications with supervisors also had these effects. The findings suggest that the buffering effects of social support may depend in part on the content of communications among potentially supportive people. Future research might examine different stressors, strains, and sources of support. (NB)

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Social Supports and Contents of Communications
between Supervisors and Subordinates

Terry A. Beehr

Lynda A. King

Daniel W. King

Central Michigan University

CG 020404

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Social Supports and Contents of Communications
between Supervisors and Subordinates

The idea that social support is linked to stress or to disease has a long history, although there have been a variety of definitions and operationalizations for it (see reviews by Beehr, 1985; Cohen & Wills, 1985; House, 1981; Kaplan, Cassel, & Gore, 1977; Kessler, Price, & Wortman, 1985). The idea that social support is linked to work-related stress in particular was obvious from the proposition that it is related to stress in general, but the history of research on the topic in the work context has been somewhat brief. In 1981, House reviewed the literature for his book, *Work Stress and Social Support*, and concluded that, "although social support is a promising idea that can potentially be applied in a wide range of ways to improve the quality of life and work it is also in many respects a new idea that has been conceptualized differently by different people. It has not yet been explored extensively in empirical research nor applied widely in programs of stress or disease prevention" (p. 9).

Assuming that social support does have some effect on stress in the workplace, a major question has been, how does it have this effect? It could affect the stressors or characteristics of the work that cause poor health, it could affect the strains or the individual's resulting poor health (mental or physical), or both. In affecting either one of these, it could have a main effect in which it directly alters the level of stressors or

strains, or it could have an interaction effect in which it interacts with some other variable in order to affect the level of stressors or strains.

In the research literature on occupational stress, there does appear to be a main effect of social support on psychological strains (psychological ill health and well-being), but the research on its main effect on physiological strains is more scarce and the results more equivocal (Beehr, 1985). The most intriguing question for investigators of occupational stress and social support appears to be whether social support interacts with occupational stressors to lead to individual strains. Ganster, Fusilier, and Mayes (1986) have called this the dominant social support hypothesis, that is, that it "buffers the impact of stressors on manifestations of strain" (p. 102). The buffering hypothesis holds that social support interacts with stressors in a specific manner--so that the relationship between job stressors and individual strains is weakened by the existence of social support. This interaction is also sometimes called a moderating effect.

Several authors have recently concluded that the findings regarding the buffering hypothesis in work settings have been mixed (e.g., Beehr, 1985; Ganster, et al., 1986), with some studies finding a buffering effect (e.g., Gore, 1978; House, McMichael, Wells, Kaplan, & Landerman, 1979), some studies finding essentially no interaction effects (e.g., Beehr & Drexler, 1986; Blau, 1981; Ganster, et al., 1986), and still others finding "opposite buffering" or "reverse buffering"

effects in which the presence of social support seemed to have made the relationship between occupational stressors and individual strains stronger rather than weaker (e.g., Beehr, 1976; Kaufmann & Beehr, 1986). Chisholm, Kasl, and Mueller (1986) recently found some instances of buffering and some instances of reverse buffering, and they concluded that this was consistent with "the highly selective rather than general buffering effect that has emerged from previous studies" (p. 191). Various explanations have been proposed for the inconsistency of the findings, and one of these is explored in the present study.

Regarding the previously mentioned inconsistency of definitions and operationalizations of social support, it has been suggested that social support may take many forms, and that the form it takes may be related to the extent to which it buffers or moderates the relationship between occupational stressors and individual strains (e.g., House, 1981; Beehr, 1985). Specifically, this study examined social support from supervisors operationalized in two different ways: (1) one of the most traditional ways in which employees are asked the extent to which their supervisors are willing to lend emotional support and also to help subordinates get their work done if difficulties arise, and (2) a new way that examines the contents of the communications between supervisors and subordinates. Supervisors are very influential members of one's role sets at work, and it was expected that the type of support they offered would have some effect. It has been suggested that what people talk about

during support episodes at work can vary and that this variation may influence the extent to which the support has buffering effects (Beehr, 1976; Kaufmann & Beehr, 1986; LaRocco, House, & French 1980). This idea has not been tested empirically, however.

The stressed employee and his or her potentially supportive others can talk about their situation in at least two ways (Beehr, 1985). They can talk about how bad things are (e.g., how stressful the job is) or they can talk about how good things are at work (e.g., "cheer up, things could be worse"). In addition to these positive and negative work-related contents of communication, of course, they could talk about non-work related events (perhaps a form of escapism). While any or all of these might be seen as supportive by the employee, it seems possible for them to have very different effects on his or her psychological well-being or strains.

The types of individual strains involved in the study were indicators of psychological well-being (as opposed to physical illness). They included two work-related affective states. One was general job satisfaction. The other was satisfaction with a specific facet of the workplace, satisfaction with the supervisor. Since the study focused on support from the supervisor, this was a specific type of satisfaction likely to be affected. Besides satisfactions, a measure of depression and two measures of burnout were included as potential outcomes. The two measures of burnout were emotional exhaustion and depersonalization of the clients (in this case, patients in

hospitals). Depersonalization is the tendency to care less about clients as individual people and to begin thinking of them as and treating them as impersonal objects.

Four basic questions were addressed in the study. First, are there different contents of communications between potentially stressed employees and their supervisors, and if so, what are they? Second, how are the differences in the contents of communications (if any) between supervisors and subordinates related to employees' perceptions of their supervisors' support? Third, what are the main effects of these two types of support (traditional and contents of communications) on individual strains? Fourth, which (if any) type of support (traditional perceptions of support or contents of communications) is more likely to buffer or moderate the relationship between occupational stressors and individual strains, and which (if any) is more likely to have reverse or opposite buffering effects?

Method

This study was part of a larger project sponsored by the U. S. Public Health Service (grant number RO1 NU 00986). Nurses from seven hospitals in central Michigan participated voluntarily in the study. The number of full-time staff nurses employed by the hospitals ranged from 19 to 300, and the cities in which the hospitals were located ranged in population from less than 10,000 to almost 100,000. Registered nurses were randomly chosen for inclusion in the sample and were promised confidentiality. A few nurses were unable to attend meetings in which questionnaire packets were distributed, and non-randomly chosen nurses were

substituted for them. In addition, a few other nurses were included who had heard of the study and requested permission to participate.

Sample

Three hundred thirty-seven nurses were asked to participate, and 225 agreed for a response rate of 66.8%. Ninety-two and eight tenths of the respondents were female, their average age was 35.5 years, they had been licensed nurses for an average of 11.05 years, their average salary was \$20,054, 74.1% were married, and they averaged 1.3 children.

Measures

Role Stressors. Role ambiguity ($M=2.60$, $SD=0.59$, $\alpha=.49$) was measured by the four-item scale from Beehr (1976), answered on a five-point scale with the points labeled "strongly agree," "agree," "neutral; no opinion or undecided," "disagree," and "strongly disagree." The items were "I can predict what others will expect of me tomorrow," "on my job, whatever situation arises, there are procedures for handling it," "I get enough facts and information to work my best," and "it is clear what others expect of me on my job." This index was intended to measure role ambiguity in more than one form (present and future, expectations of other people and formal procedures, etc.). Therefore, a relatively low internal consistency reliability was not surprising.

Two role conflict measures were used, the 15-item general

role conflict scale ($M=2.64$, $SD=0.45$, $\alpha=.76$) of Rizzo, House, and Lirtzman (1970) and a specially constructed 10-item index aimed specifically at measuring inter-sender (and person-role) nursing role conflict ($M=2.46$, $SD=0.57$, $\alpha=.83$). Both were answered on the five-point, agree-disagree scale. A sample item from the general role conflict scale was "I do things that are apt to be accepted by one person but not accepted by others." The items in the inter-sender nursing role conflict scale are in Table 1.

Insert Table 1 about here

Outcomes. General job satisfaction ($M=5.23$, $SD=1.23$, $\alpha=.90$) was measured with the mean of responses to four items from Quinn and Sheppard (e.g., "All in all, how satisfied would you say you are with your present job?") measured on a seven-point, scale with points 1 ("not at all satisfied"), four ("moderately satisfied"), and seven ("very satisfied") labeled. Satisfaction with the supervisor ($M=5.18$, $SD=1.56$, $\alpha=.93$) was measured on the same scale by the mean of responses to three items ("All in all, how satisfied are you with your supervisor," "how satisfied are you with the degree of respect and fair treatment you receive from your immediate supervisor," and "how satisfied are you with the amount of support and guidance you received from your immediate supervisor?"). The depressed mood index ($M=1.67$, $SD=0.55$, $\alpha=.88$) was from Caplan, Cobb, French,

Harrison, and Pinneau (1980). It was the mean of responses to six items on a four-point frequency scale with scale points labeled "most of the time," "a good part of the time," "some of the time," and "never or a little of the time." A sample item was, "I feel depressed." Emotional exhaustion ($M=2.20$, $SD=1.13$, $\alpha=.91$) and depersonalization of patients ($M=1.25$, $SD=1.01$, $\alpha=.73$) were subscales of the Maslach Burnout Inventory (Maslach & Jackson, 1981), revised to make the wording fit the hospital setting by referring to "patients" instead of "recipients." Only the frequency response format (scale points were "never," "a few times a year or less," "once a month," "a few times a month," "once a week," "a few times a week," and "every day") was used because of previous research (Gaines & Jermier, 1983; Iwanicki & Schwab, 1981; Wiedel & Patrick, 1981) indicating that this format was adequate for measuring burnout without also including the intensity response format. A sample item for the emotional exhaustion measure was "I feel emotionally drained from my work," and an item from the depersonalization measure was "I feel I treat some patients as if they were impersonal objects."

Social Supports. Fourteen social support items (see Table 2 for these fourteen items) were included in the questionnaire to be answered on a five-point, frequency response scale ("never," "seldom," "occasionally," "often," and "always"). A factor analysis with oblique rotation resulted in four factors that were labeled coworker instrumental support ($M=3.95$, $SD=0.58$, $\alpha=.66$), family and friends emotional support ($M=3.84$, $SD=0.70$,

alpha=.76), coworker and friends emotional support ($M=3.40$, $SD=.72$, alpha=.72), and supervisor support ($M=3.75$, $SD=0.90$, alpha=.85). Four indices were formed by taking the means of the respective items.

Insert Table 2 about here

Contents of Communications with Supervisors. Regarding the content of communications with supervisors, nurses were also asked to "judge how often you talk about these subjects with him/her" (see Table 3 for these twelve items). A factor analysis with oblique rotation resulted in three factors that were labeled non-job related communication ($M=2.87$, $SD=0.90$, alpha=.92), negative communication ($M=2.84$, $SD=0.64$, alpha=.75), and positive communication ($M=2.86$, $SD=0.68$, alpha=.80). Three indices were formed by computing the means of the respective items.

Insert Table 3 about here

Correlations among all variables are in Table 4.

Insert Table 4 about here

Analyses. Moderated multiple regression was used to test for the potential moderating effects of social support and

contents of communications on the relationships between the role stressors and the individual outcomes.

Results

Nature of Communications between Supervisors and Subordinates

One issue of this study concerns the nature of communication between the supervisors and their potentially stressed subordinates. The factor analysis in Table 3 indicates that there may be three types of contents of communications between them: communication about non-work events, about the bad things about work, and about the good things about work. There is considerable loading of items on more than one factor, however, and the median correlation among the three indices is .55 (Table 4). This may indicate that there is a tendency for supervisors and subordinates who talk to each other to communicate more than one type of content. The factor analysis does offer some support, however, for the idea that supervisors and subordinates can engage in communication with more than one type of content and that positive and negative comments about work are two of these types of content.

Correlations

Also in Table 4, the correlations between the more traditional index of supervisor support and the indices measuring contents of communications between supervisors and subordinates are interesting. They suggest that when subordinates experience a subjective feeling of support from their supervisors their

communications are concerned with non-job events or about good things regarding the job rather than about bad things regarding the job.

The two conflict indices (i.e., the Rizzo, et al., general role conflict index and the specific nursing inter-sender role conflict index developed for this study) correlate .64 (Table 4), indicating a strong overlap between these. This might mean that the specific types of inter-sender conflict measured in the specific scale are indeed good examples of the types of events leading to a general feeling of role conflict.

All three role stressors were correlated with all five outcomes in the expected direction, with the general role conflict measure being consistently more strongly correlated with the outcomes than the other two role stressors. The social supports also tended to correlate with the outcomes in the expected direction, with the possible exception of support from co-workers and friends.

Regarding the correlations between contents of communications with supervisors and outcomes, positive communications with supervisors had the largest number of significant correlations with the outcomes and negative communications had the smallest number.

Buffering Effects of Support and Communications

Tables 5 through 9 contain the results of the moderated multiple regressions testing for potential interactions of role stressors with social support and content of communication with

the supervisor to predict the outcomes. Only eight of the 105 interactions reached traditional levels of significance ($p < .05$). Seven of the 45 interactions involving contents of communications were significant, however. Using a more liberal criterion for significance ($p < .10$), 13 of the 105 total interactions were significant and 11 of the 45 involving contents of communication were significant. The pattern of significance among the interactions suggests that the contents of communications between supervisors and subordinates may be a key factor in determining whether an interaction effect is present.

Insert Tables 5 through 9 about here

The supervisor satisfaction outcome had the largest number of significant interactions (Table 6). This is not surprising, because the study focused on supervisor's communications with the nurses rather than coworkers' or others' communications with them.

Insert Table 10 about here

Table 10 shows the shapes of the thirteen significant ($p < .10$) interactions in the manner described by Cohen and Cohen (1975). The two equations in each row can each be solved twice by inserting high and low stressor scores (e.g., plus and minus

one standard deviation on the appropriate stressor, which can be obtained from the method section); the four resulting levels of the criterion can then be plotted as an interaction figure for each of the 13 interactions.

The eleven interactions involving content of communications as moderators (see far right column in table) were all in the direction consistent with the buffering hypothesis. For the criteria on which high scores indicated aversive outcomes (depression and emotional exhaustion), the positive slopes of the relationships between role stressors and individual strains were steeper under conditions of low than high communication with supervisors. For the criteria on which high scores indicated favorable outcomes (general job satisfaction and supervisor satisfaction), most of the slopes were very slightly negative under conditions of high social support and were more negative under conditions of low social support.

Two interactions in the table involved more traditional support variables. Coworker emotional support interacted with role ambiguity in the direction consistent with the buffering hypothesis. The positive slope of the relationship between role ambiguity and depersonalization was steeper under conditions of low than high coworker emotional support. Supervisor support, however, interacted with nursing inter-sender role conflict in the so-called reverse buffering manner. The slope of the relationship between nursing inter-sender role conflict and supervisor satisfaction was slightly positive under conditions of low social support and slightly negative under conditions of high

social support.

In addition to the interactions, Tables 5 through 9 also show that there were numerous main effects of the role stressors, the social supports, and the contents of communications on the individual outcomes. These were in general consistent with the correlations in Table 4.

Discussion

The four topics addressed by the study were identifying (1) the types of communications potentially stressed employees have with their supervisors at work, (2) the ways in which the different types of communications are related to employees' perceptions of social support available from the supervisors, (3) the main effects of different types of social support on individual strains, and (4) the relative tendencies for different types of social support to buffer the relationship between occupational stressors and strains.

Regarding the first question, it appears that the two types of communications that were expected regarding work, positive and negative, do occur between supervisors and subordinates. In addition, talking about non-job related events is another type of communication these two parties have with each other. These types of communication are not exclusive, however. Instead, when subordinates and supervisors talk, they may communicate more than one of these types of contents. It would be interesting to see whether subordinates talk to each other in ways different from their communications with their supervisors. One might expect,

for example, that there would be more negative job-related communications among coworkers who are peers than between supervisors and subordinates. If so, this might have some impact on the effects of social support on occupational stress processes.

Regarding the second question, subordinates' perceptions of available support from their supervisors are primarily related to positive job-related communications or to non-job related communications and only slightly related to negative job-related communications. It had been suggested previously that supportive people can tell stressed employees that things are not as bad as they seem or that they are indeed bad (Beehr, 1976). Negative job-related communications, however, are apparently not seen by employees as strong indicators of support. It makes intuitive sense that negative communications would not lead to perceptions of support, but at least they did not lead to perceptions of lack of support either. In fact, negative communications were slightly positively related to perceptions of support, perhaps indicating that it is better to even hear bad things than to hear nothing at all from the supervisor.

The third question, what are the main effects of the two types of social support on individual strains, was addressed both by the zero-order correlations between social supports and communications with supervisors and and by the change in R-square due to the entry of social supports (and communications) into the moderated multiple regression predictions. As in other studies, (e.g., Chisholm, et al., 1986; Kaufmann & Beehr, 1986) the

present data showed that the traditional measures of perceived social support had main effects on employee strains. The contents of communications with supervisors also had these effects, but they were most consistent for positive work-related communications, and negative work-related communications with the supervisor definitely had the least effect. The lesson here may be that supervisors lose their effectiveness to help stressed subordinates if they voice negative opinions about the workplace to them. Even restricting conversation to non-work events may be better than talking about the job negatively.

The traditional measures of social support varied in their relationships to individual strains, with coworker instrumental support and supervisor support (which was a combination of instrumental and emotional support) potentially the most helpful to subordinates experiencing work-related stress. This fits with a theme that support for work-related stress may be most effective when offered in the workplace by those who can do something about the stressors, and it supports this study's choice to investigate the supervisor as an important source of support and communications for stressed employees. Future studies might investigate coworkers as another important source of support and communications. The present study measured perceptions of coworker support but did not include measures of coworkers' communications with each other.

The fourth question addressed the issue of moderating or buffering effects of social support. Based on this study, it appears that the buffering effects of social support may indeed

depend in part on the content of communications among potentially supportive people, as previously suggested (e.g., Beehr, 1985). There were many more interactions between contents of communications and stressors predicting strain outcomes than there were between traditionally measured perceptions of social support and stressors. Types of communications may be one of the critical elements of social support in the stress process.

It had been previously suggested that positive and negative contents of communications might interact oppositely with stressors to affect social support. That is, positive communications might buffer occupational stressor-individual strain relationships while negative communications might have a reverse or opposite buffering effect. This did not appear to occur in the present data. The only reverse buffering effect was found for the traditional supervisor support measure.

The majority of the buffering effects due to contents of communications resulted from non-job related communications. One interpretation of this is that supervisors might best be able to buffer subordinates from the harmful effects of occupational stress by using a distraction strategy, that is, by talking to them about anything except the job when the job is stressful. It also could mean that supervisors who talk about non-job related things to subordinates are talking to them about things that the subordinates care about most. Neither of these interpretations could be tested in the present data.

It was interesting that positive communications had little effect in the way of buffering the stressor-strain relationship.

This does not mean that it cannot be helpful to employees, however, since positive communications between supervisors and subordinates did have a main effect on subordinates' strains.

Although the idea that contents of communications between supportive people and stressed employees might be a primary factor in the effects of social support has been suggested several times during the last decade or longer (e.g., Beehr, 1976; Kaufmann & Beehr, 1986; LaRocco, et al., 1980), it has not been test empirically until now. Clearly there is a need for replication and extension of this work. This was a limited test of the proposition, because it examined support from only one source and only examined psychological strains. The particular source (i.e., the supervisor) chosen was an important one, in the workplace, however, and the psychological strains have been the most common type studied in the past. One obvious direction for future research is to do similar analyses with different stressors, strains, and sources of support.

While there has been a great flurry of research on social support in regard to occupational stress in recent years, much remains to be learned. We echo Wells' statement at the end of his review that "At a time when much is to be done in understanding social support, it seems to be the the object of faddish enthusiasm. One hopes that its future is as bright as its present" (p. 140).

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Table 1

Items in the Inter-sender Nursing Role Conflict Scale

1. Families of patients ask me to do things that conflict with my own judgment.
 2. Patients demand more of me than I have time to give.
 3. Patients ask me to do things that go against the way the head nurse wants me to do my job.
 4. What the patient wants of me and what the physician wants of me are two different things.
 5. Some things the head nurse would like me to do conflict with the doctors' orders.
 6. Families of patients ask me to do things that conflict with the way the head nurse wants me to do my job.
 7. The head nurse asks me to do things that conflict with my own judgment.
 8. I am often torn between the needs of my patients and the demands of hospital policy.
 9. Families of patients want me to do things that violate their doctors' orders.
 10. Physicians ask me to do things that conflict with my own judgment.
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Table 2

Factor Analysis of Social Support Items

Items	Loadings			
	Factor 1 Co-worker Instrumental Support	Factor 2 Family & Friends Emotional Support	Factor 3 Co-worker & Friends Emotional Support	Factor 4 Supervisor Support
I can rely on my co-workers to help me when my work load is too heavy.	<u>.73</u>	.29	.13	-.28
There is someone to help me do my job when I need to get something done quickly.	<u>.63</u>	.23	.18	-.40
It is easy for me to talk with my co-workers.	<u>.58</u>	.30	.20	-.29
When I need to change my work schedule, I can count on my co-workers to switch shifts.	<u>.42</u>	.02	.05	-.31
My family is willing to listen to my personal problems.	.36	<u>.85</u>	.18	-.18
My family gives me all the support I need.	.33	<u>.84</u>	.10	-.16
I find it easy to talk about my job with my family.	.12	<u>.63</u>	.30	-.08
After a hard day of work I can count on my friends to relax with.	.12	<u>.41</u>	.32	.00

My friends are willing to listen to my personal problems.	.08	.25	<u>.77</u>	-.14
My co-workers are willing to listen to my personal problems.	.38	.24	<u>.76</u>	-.23
The head nurse is easy to talk to.	.47	.17	.08	<u>-.85</u>
I can depend on the head nurse for help when things get tough at work.	.48	.16	.08	<u>-.82</u>
The head nurse is willing to listen to my personal problems.	.40	.13	.44	<u>-.80</u>
The head nurse is willing to change my work schedule when I need it.	.60	-.03	-.03	<u>-.61</u>
Eigenvalue	4.43	2.16	1.49	1.15
Cumulative % Variance	31.7	47.1	57.7	65.9

Table 3

Factors Analysis of Content of Communication

Items	Loadings		
	Factor 1 Non-job Related Communication	Factor 2 Negative Communication	Factor 3 Positive Communication
We discuss things that are happening in our personal lives.	<u>.89</u>	.45	.50
We talk about off-the job interests that we have in common.	<u>.88</u>	.48	.55
We share personal information about our backgrounds and families.	<u>.88</u>	.44	.54
We talk about off-the job social events.	<u>.80</u>	.44	.54
We talk about how we dislike some parts of our work.	.58	<u>.79</u>	.51
We talk about the bad things about our work.	.40	<u>.71</u>	.33
We talk about problems in working with doctors.	.49	<u>.58</u>	.54
We talk about how this hospital is a lousy place to work	.24	<u>.51</u>	.06
We talk about the good things about our work.	.49	.17	<u>.86</u>
We share interesting ideas about nursing care.	.53	.41	<u>.66</u>
We talk about how this hospital is a good place to work.	.44	.24	<u>.66</u>
We talk about the rewarding things about being a nurse.	.44	.31	<u>.64</u>
Eigenvalue	5.71	1.38	1.16
Cumulative % Variance	47.5	59.1	68.7

Table 4

Correlations Among All Variables (n's in Parentheses)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Role Stressors														
1. Role ambiguity														
2. General role conflict	.50** (215)													
3. Inter-sender nursing role conflict	.43** (220)	.64** (215)												
Outcomes														
4. General job satisfaction	-.38** (222)	-.56** (216)	-.36** (221)											
5. Satisfaction with supervisor	-.30** (221)	-.44** (215)	-.20** (220)	.45** (224)										
6. Depressed mood	.28** (222)	.47** (216)	.28** (221)	-.53** (224)	-.39** (223)									
7. Emotional exhaustion	.22** (216)	.50** (211)	.32** (215)	-.53** (218)	-.36** (217)	.62** (218)								
8. Depersonalization	.21** (222)	.35** (216)	.28** (221)	-.31** (224)	-.22** (223)	.39** (224)	.63** (218)							
Social Supports														
9. Co-worker instrumental	-.28** (220)	-.38** (214)	-.23** (219)	.35** (222)	.39** (221)	-.43** (222)	-.28** (216)	-.12* (222)						
10. Family & friends emotional	-.16** (218)	-.24** (212)	-.18** (217)	.26** (220)	.19** (219)	-.25** (220)	-.25** (214)	-.23** (220)	.31** (218)					
11. Co-worker & friends emotional	-.07 (222)	-.09 (216)	-.09 (221)	.19** (224)	.12* (223)	-.08 (224)	-.05 (218)	-.04 (224)	.28** (222)	.30** (220)				
12. Supervisor	-.33** (216)	-.41** (211)	-.27** (215)	.37** (218)	.57** (217)	-.30** (218)	-.24** (214)	-.08 (218)	.53** (217)	.19** (215)	.26** (218)			
Content of Communication with Supervisor														
13. Non-job related	-.18** (219)	-.25** (213)	-.13* (218)	.16** (221)	.36** (220)	-.18** (221)	-.09 (215)	-.01 (221)	.27** (219)	.08 (217)	.12* (221)	.40** (215)		
14. Negative	-.08 (220)	.01 (215)	.06 (219)	-.04 (222)	.15* (221)	-.05 (222)	.07 (216)	.01 (222)	.13* (218)	.01 (218)	.03 (222)	.18** (216)	.55** (220)	
15. Positive	-.28** (219)	-.33** (214)	-.14* (218)	.30** (221)	.48** (220)	-.30** (221)	-.24** (215)	-.28** (221)	.32** (219)	.26** (217)	-.01 (221)	.44** (215)	.58** (220)	.47** (221)

* p < .05

**p < .01

Table 5

Moderated Multiple Regressions Predicting General Job Satisfaction from Role Stressors in Combination with Social Supports and Contents of Communications with Supervisors

Social Support & Contents of Communications with Supervisor	Role Stressors								
	General Role Conflict			Inter-sender Nursing Role Conflict			Role Ambiguity		
	R ²	N	Final Multiple R	R ²	N	Final Multiple R	R ²	N	Final Multiple R
	Change			Change			Change		
<u>Social Supports</u>									
A Role stressor	.29***			.12***			.14***		
B Co-workers instrumental	.03**			.09***			.08***		
A x B	.00		.57***	.00		.45***	.00		.46***
A Role stressor	.29***			.12***			.14***		
B Family & friends emotional	.03**			.05***			.05***		
A x B	.00		.56***	.00		.41**	.00		.43***
A Role stressor	.29***			.12***			.14***		
B Co-worker & friends emotional	.01*			.01			.01		
A x B	.00		.55***	.00		.36***	.00		.38***
A Role stressor	.29***			.12***			.14***		
B Supervisor	.02**			.06***			.05***		
A x B	.00		.56***	.00		.43***	.00		.44***
<u>Contents of Communications</u>									
A Role stressor	.29***			.12***			.14***		
B Non-job related	.00			.00			.00		
A x B	.00		.54***	.01		.36***	.03**		.41***
A Role stressor	.29***			.12***			.14***		
B Negative job related	.01			.00			.01*		
A x B	.01		.55***	.02**		.37***	.01*		.40***
A Role stressor	.29***			.12***			.14***		
B Positive job related	.01*			.05**			.03***		
A x B	.01		.55***	.00		.41***	.00		.41***

*p < .10

**p < .05

***p < .01

Table 6

Moderated Multiple Regressions Predicting Satisfaction with Supervisor from Role Stressors in Combination with Social Supports and Contents of Communications with Supervisors

Social Support & Contents of Communications with Supervisor	Role Stressors								
	General Role Conflict			Inter-sender Nursing Role Conflict			Role Ambiguity		
	R ²	N	Final Multiple R	R ²	N	Final Multiple R	R ²	N	Final Multiple R
	Change			Change			Change		
<u>Social Supports</u>									
A Role stressor	.16***			.02			.05**		
B Co-worker instrumental	.07***			.14***			.12***		
A x B	.00		.49***	.00		.40***	.00		.42***
A Role stressor	.16***			.02			.05***		
B Family & friends emotional	.01			.03**			.03*		
A x B	.00		.42***	.00		.22**	.00		.28***
A Role stressor	.16***			.02*			.05***		
B Co-worker & friends emotional	.00			.00			.00		
A x B	.00		.41***	.01		.18	.00		.24***
A Role stressor	.16***			.02			.05		
B Supervisor	.22***			.33***			.30***		
A x B	.00		.63***	.01*		.60***	.00		.59***
<u>Contents of Communications</u>									
A Role stressor	.16***			.02			.05***		
B Non-job related	.05***			.09***			.08***		
A x B	.04***		.50***	.02*		.35***	.03**		.40***
A Role stressor	.16***			.02**			.05***		
B Negative job related	.01			.01			.01		
A x B	.01*		.44***	.01		.21*	.02*		.27***
A Role stressor	.16***			.02			.05*		
B Positive job related	.12***			.19***			.17***		
A x B	.02**		.56***	.00		.46***	.00		.47***

*p < .10

**p < .05

***p < .01

Table 7

Moderated Multiple Regressions Predicting Depressed Mood from Role Stressors in Combination with Social Supports and Contents of Communications with Supervisors

Social Support & Contents of Communications with Supervisor	Role Stressors								
	General Role Conflict			Inter-sender Nursing Role Conflict			Role Ambiguity		
	R ²	N	Final Multiple R	R ²	N	Final Multiple R	R ²	N	Final Multiple R
	Change			Change			Change		
Social Supports									
A Role stressor	.19***			.05**			.07**		
B Co-worker instrumental	.07***			.13***			.12***		
A x B	.00		.52***	.00		.43***	.00		.44***
A Role stressor	.19***			.05***			.07**		
B Family & friends emotional	.02**			.04***			.04**		
A x B	.00		.46***	.00		.32***	.01		.35***
A Role stressor	.19***			.05***			.07***		
B Co-worker & friends emotional	.00			.00			.00		
A x B	.00		.44***	.01		.26***	.01		.28***
A Role stressor	.19***			.05***			.07***		
B Supervisor	.01			.04***			.03**		
A x B	.00		.45***	.00		.31***	.00		.33***
Contents of Communications									
A Role stressor	.19***			.05***			.07***		
B Non-job related	.00			.01			.00		
A x B	.00		.44***	.01		.26***	.04***		.33***
A Role stressor	.19***			.05***			.07***		
B Negative job related	.00			.00			.00		
A x B	.00		.44***	.00		.24**	.00		.28***
A Role stressor	.19***			.05***			.07***		
B Positive job related	.03***			.08***			.06***		
A x B	.00		.47***	.00		.36***	.00		.37***

*p < .10

**p < .05

***p < .01

Table 8

Moderated Multiple Regressions Predicting Emotional Exhaustion from Role-Stressors in Combination with Social Supports and Contents of Communications with Supervisors

	Role Stressors								
Social Support & Contents of Communications with Supervisor	General Role Conflict			Inter-sender Nursing Role Conflict			Role Ambiguity		
	R ²	N	Final Multiple R	R ²	N	Final Multiple R	R ²	N	Final Multiple R
	Change			Change			Change		
<u>Social Supports</u>									
A Role stressor	.25***			.08***			.04**		
B Co-worker instrumental	.01			.04***			.04***		
A x B	.01		.51***	.00		.35***	.00		.20***
A Role stressor	.25***			.08***			.04**		
B Family & friends emotional	.02**			.04***			.05***		
A x B	.01		.52***	.00		.35***	.00		.30***
A Role stressor	.25***			.08***			.04***		
B Co-worker & friends emotional	.00			.00			.00		
A x B	.00		.50***	.00		.29***	.00		.22**
A Role stressor	.25***			.08***			.04**		
B Supervisor	.00			.02**			.03**		
A x B	.01		.51***	.00		.33***	.01		.27***
<u>Contents of Communications</u>									
A Role stressor	.25***			.08***			.04***		
B Non-job related	.01			.00			.00		
A x B	.00		.51***	.02**		.33***	.01		.24**
A Role stressor	.25***			.08***			.04***		
B Negative job related	.02**			.02*			.03**		
A x B	.00		.52***	.01		.33***	.00		.27***
A Role stressor	.25***			.08***			.04**		
B Positive job related	.00			.02**			.02*		
A x B	.01		.51***	.00		.32***	.00		.25***

*p < .10

**p < .05

***p < .01

Table 9

Moderated Multiple Regressions Predicting Depersonalization from Role-Stressors in Combination with Social Supports and Contents of Communications with Supervisors

	Role Stressors								
Social Support & Contents of Communications with Supervisor	General Role Conflict			Inter-sender Nursing Role Conflict			Role Ambiguity		
	R ²	N	Final Multiple R	R ²	N	Final Multiple R	R ²	N	Final Multiple R
	Change			Change			Change		
<u>Social Supports</u>									
A Role stressor	.12***			.07***			.03**		
B Co-worker instrumental	.00			.00			.01		
A x B	.00		.35***	.00		.28***	.00		.20*
A Role stressor	.12***			.07***			.03**		
B Family & friends emotional	.02**			.03**			.04***		
A x B	.00		.38***	.00		.33***	.00		.28***
A Role stressor	.12***			.07***			.03**		
B Co-worker & friends emotional	.00			.00			.00		
A x B	.00		.36***	.00		.28***	.03**		.26***
A Role stressor	.12***			.07***			.03**		
B Supervisor	.00			.00			.00		
A x B	.00		.36***	.00		.28***	.00		.20*
<u>Contents of Communications</u>									
A Role stressor	.12***			.07**			.03***		
B Non-job related	.01*			.00			.00		
A x B	.00		.37***	.01		.29***	.01		.22**
A Role stressor	.12***			.07***			.03**		
B Negative job related	.00			.00			.01		
A x B	.00		.36***	.01		.29***	.01		.21**
A Role stressor	.12***			.07***			.03*		
B Positive job related	.03**			.05***			.05***		
A x B	.00		.39***	.01		.36***	.00		.30***

Table 10

Shapes of Significant Interactions

Criterion =	High Social Support ^a				Low Social Support ^b				Type of Communication or Support
	b (Slope)	(Stressor)	+	a (Constant)	b (Slope)	(Stressor)	+	a (Constant)	
Depression =	.088	RA	+	8.662	.587	RA	+	3.955	Talk: Non-job
Gen. Job Sat. =	-.098	RA	+	6.391	-.272	RA	+	8.063	Talk: Non-job
Gen. Job Sat. =	-.131	RA	+	6.490	-.251	RA	+	8.049	Talk: Negative
Gen. Job Sat. =	-.043	NIRC	+	6.239	-.100	NIRC	+	7.811	Talk: Negative
Supervisor Sat. =	-.017	RA		5.894	-.228	RA	+	7.227	Talk: Non-job
Supervisor Sat. =	-.057	RA	+	5.968	-.234	RA	+	7.607	Talk: Negative
Supervisor Sat. =	-.037	RC	+	7.101	-.121	RC	+	9.779	Talk: Non-job
Supervisor Sat. =	-.068	RC	+	8.105	-.118	RC	+	9.759	Talk: Negative
Supervisor Sat. =	-.038	RC	+	7.377	-.097	RC	+	8.547	Talk: Positive
Supervisor Sat. =	.007	NIRC	+	5.578	-.068	NIRC	+	6.505	Talk: Non-job
Supervisor Sat. =	-.022	NIRC	+	6.678	.028	NIRC	+	3.627	Supervisor
Emotional Ex. =	.239	NIRC	+	14.016	.800	NIRC	+	-0.109	Talk: Non-job
Depersonalization =	.083	RA	+	5.236	.831	RA	+	-2.103	Co-worker Emotional

Note. RA = Role Ambiguity; RC = Role Conflict; NIRC = Nursing Inter-Sender Role Conflict.

^aSupport Score = M + 1 SD. ^bSupport Score = M - 1 SD.